

TREE PROTECTIVE DEVICE - SMOOTH

WIRE FENCE GENERAL NOTES

2. Trees along the LOD will be root pruned. See Root Pruning Detail and Notes on this FCP. Pruning

locations shown on this FCP-2. TPDs will be installed in or within one foot (1') of root pruning

4. Personnel, vehicles, materials, equipment, and supplies are prohibited within the Forest Conservation

throughout clearing and construction. Chips from trees removed from the site may be blown into

maximum of 10 feet apart. Install posts to avoid damaging large tree roots, and at least 2 feet

deep. Wire shall be evenly spaced along the height of the posts, with the top strand 4 feet and the bottom strand approximately 18 inches above grade, and fastened securely to the posts

7. Flagging shall be an orange, pink, yellow, or red strip at least 1 inch wide and 12 inches long

8. Temporary Forest Conservation Area signs will be securely attached to at least every 5th post or

spaced not more than 50 feet apart. The signs will be a design approved in advance by the

9. Sediment and erosion control measures will comply with the site Sediment & Erosion Control Plan

performance specifications; the TPD fence posts may double as posts for the silt fence. "Super

silt fence" at least 3 feet high may replace TPDs in areas where they are in the same location.

as approved by the County Soil Conservation District (SCD). With proper approval, TPDs may

double as silt fence provided the silt fence is installed and maintained to meet applicable

10. TPDs and temporary signs are to be maintained in good condition until the completion of all clearing and grading within 50 feet of the TPD, or coincidental with final stabilization following

removal of temporary sediment and erosion control devices, or until Contractor is directed in

writing by the FCA authority to remove them. Contractor will remove and dispose of temporary

tied securely to the top wire. Space the flagging strips at about equal distance between posts,

Areas (FCAs) except as specifically permitted for limited use (ex., to develop nature trails).

5. Trees felled during site clearing may not be felled into the FCAs. TPDs must be maintained

6. Fence posts will be a minimum of 1-3/4-inch x 3/4-inch steel U-channel type spaced a

without appreciable sag. Minimum acceptable wire is 14 gauge smooth wire.

appropriate FCP approval authority. See Sign Detail on this Plan

FCA signs are required as per TPDs on super silt fence used as a TPD.

signs and TPDs off site unless otherwise directed by Owner or in contracts.

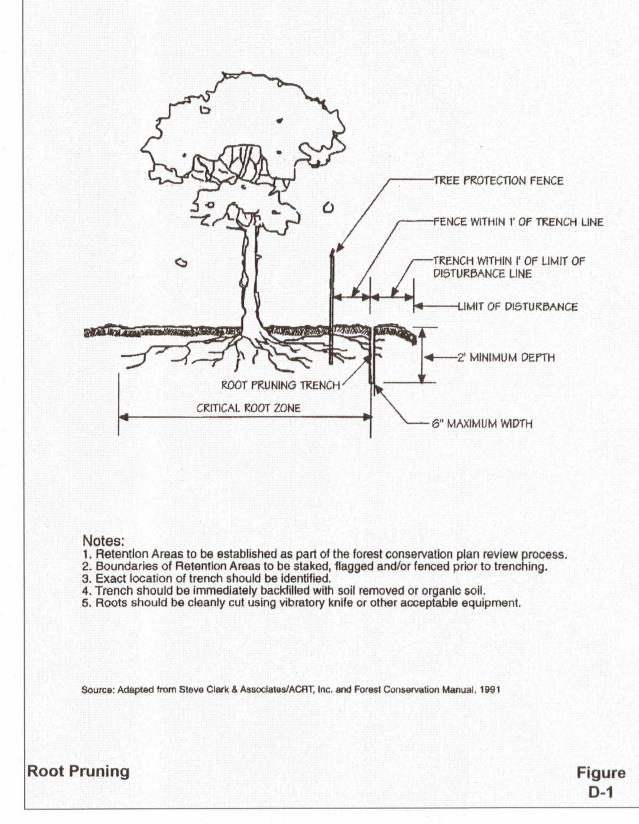
trenches where the LOD corresponds to the FCA boundary. See the "Legend" for TPD identification.

3. Tree Protective Devices will be erected prior to any clearing or grading on the site and at the

1. No clearing or grading will occur on the site until after County approval of the Final Forest

will be prior to the installation of tree protective devices (TPDs).

the FCAs provided chips are not more than 3" deep.



PRIOR TO CLEARING, THE DEVELOPER SHALL ROOT PRUNE THE EXISTING SPECIMEN TREES AS NOTED (*) ALONG THE LIMITS OF DISTURBANCE AND PROVIDE DEEP ROOT FERTILIZATION TO ENSURE THEIR SURVIVAL.

ANCHOR POSTS SHOULD BE HIGHLY VISIBLE ← MINIMUM 2" STEEL "U" CHANNEL FLAGGING ATTACHED TO TOPS OR 2"X2" TIMBER, 6' IN LENGTH -USE 2"X4" LUMBER FOR CROSS BRACING ANCHOR POSTS MUST BE INSTALLED TO A DEPTH OF USE 8" WIRE "U" NO LESS THAN 1/3 THE TO SECURE FENCE TOTAL HEIGHT OF POST STANDARD SYMBOL

1. Blaze orange or blue plastic mesh fence for forest protection device only. 2. Boundaries of Retention Area will be established as part of the forest conservation plan

3. Boundaries of Retention Area should be staked and flagged prior to installing device. 4. Avoid damage to critical root zone. Do not damage or sever large roots when installing

5. Protection signs are required. See Figure C-4.6. Device should be maintained throughout construction.

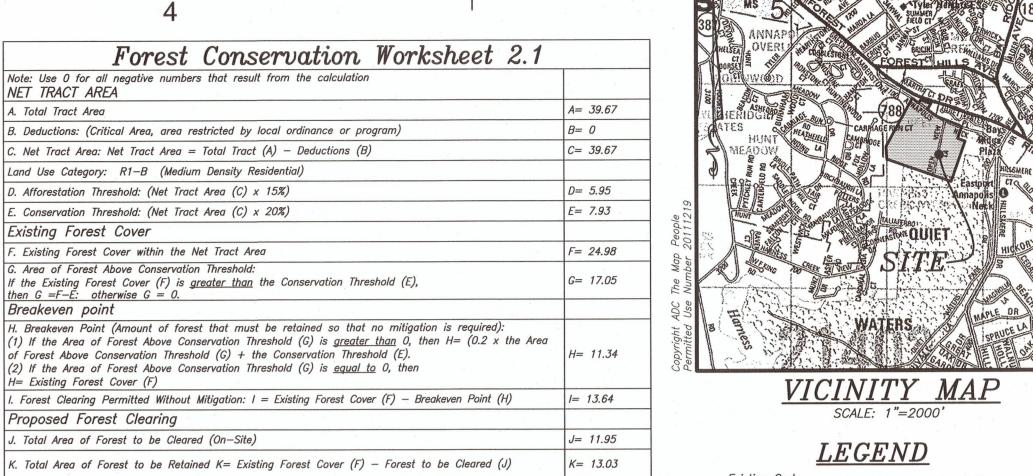
TREE PROTECTION FENCING

SPECIMEN TREE TABLE							
No.	Common Name	Scientific Name	DBH (inches)	Condition Rating	Condition Comments		
A	Yellow poplar	Liriodendron tulipifera	30	Very Poor	Crown dieback, Hollow trunk		
В	White oak	Quercus alba	36	Poor	Crown dieback, Major cavity, Invasive fine coverage		
С	Red maple	Acer rubrum	33	Poor	Girdling roots, Storm damage, Poor structure, Co-dominant leader		
D	Red maple	Acer rubrum	31	Fair	Crown dieback		
Е	Sweet gum	Liquidambar styraciflua	33	Poor	Crown dieback, Storm damage, Basal cavity		
F	Silver maple	Acer saccharinum	32	Poor	Topped, No root collar		
G .	Yellow poplar	Liriodendron tulipifera	34	Poor	Poor structure, Topped		
Н	Silver maple	Acer saccharinum	33	Fair	Co-dominant leader, Poor health		
I	Yellow poplar	Liriodendron tulipifera	39	Good			
J	Willow oak	Quercus phellos	30	Good			
K	Chestnut oak	Quercus prinus	31	Very Poor	Crown dieback, Broken limbs, Almost dead		
L	Red maple	Acer rubrum	31	Poor	Crown dieback, Broken limbs, Co-dominant leader, Poor structure, Storm damage		

MAPPED SOIL TYPES

Map			K-	Prime
Unit	Description	Hydric	Factor	Farmlan
AoB	Annapolis Loamy Sand, 2-5% slopes	No	0.20	Yes
AsC	Annapolis Fine Sandy Loam, 5-10% slopes	No	0.28	No
AuB	Annapolis-Urban Land Complex, 0-5% slopes	No	0.28	No
AuD	Annapolis-Urban Land Complex, 5-15% slopes	No	0.28	No
CkA	Colemantown Fine Sandy Loam, 0-2% slopes	Yes	0.28	No
DnB	Donlonton Fine Sandy Loam, 2-5% slopes	No*	0.32	Yes

* May potentially contain hydric inclusions.



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Existing	Curb	10000000 100000000 100000000 100000000 1000000
Existing	Contour	51
Existing	Wire Fence	aanaanaan ka maanaanaan ka maanaan ka maanaa
	Wood Fence	manamalijanamananalijanaman.
Existing	Woods line	
Existing	Telephone Line	The second secon
Existing	Electric Line	CONTRACTOR
Existing	Gas Line	CAS
Existing	Gas Valve	€ N
Existing	Stormdrain Inlet	
Existing	Stormdrain Manhole	0
Existing	Sewer Manhole	(3)
Existing	Sewer Cleanout	*50
Existing	Telephone Manhole	0
Existing	Utility Pole	<0.3
Existing	Guy Wire	anomono de la companya de la company
Existing	Water Valve	ecc ()) o ec
Existing	Water Meter	0
Existing	Fire Hydrant	080
Existing	Soils Line	DxD (B) EuD (A)
Limit o	f Non-Tidal Wetlands	
Limit o	f Wetlands Buffer (25')	
Existing	Stream	
Existing	Stream Buffer (50')	
Propos	ed Curb	

Proposed Curb

Prop. Forest Conservation

Proposed Reforestation

FCP Area Signs

Boring Location

Critical Root Zone

Existing Specimen Tree

Existing Specimen Tree To Be Removed

Proposed SWM Facility

Proposed Rain Garden

Wetlands)

(Micro-Bioretention, Landscape

Infiltration, Submerged Gravel

Proposed Submerged Gravel Wetlands or Micro-Bioretention Area

18

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For specific plant types, species, numbers, spacing, and additional notes & details regarding reforestation and installation, see Reforestation Plans by others. Proposed Super Silt Fence Proposed Limit of Disturbance

maintenance of sediment laden runoff during construction, see "Grading and Sediment Control Plans," dated October, 2014. 5. During the grading and development of the subdivision, the project is to be phased to help reduce

4. For clarity, the sediment controls shown hereon have been reduced in scope; however the overall limits

GENERAL NOTES

1. TPDs will be installed along the entire FCA boundary. The FCA boundary does not necessarily coincide with

If the Total Area of Forest to be Retained (K) is at or above the Breakeven Point (H), no planting is

(1) If the Total Area of Forest to be Retained (K) is greater than the Conservation Threshold (E), then

(2) If the Total Area of Forest to be Retained (K) is <u>less than or equal to</u> the Conservation Threshold

(1) If Existing Forest Cover (F) is greater than the Conservation Threshold (E) and the Forest to be

(2) If Existing Forest Cover (F) is less then or equal to the Conservation Threshold (E), then M= 2.0 x

If the area of Forest to be Retained (K) is greater than the Conservation Threshold (E), then N=K-E

If Existing Forest Cover (F) is less than the Afforestation Threshold (D), then Q= Afforestation Threshold

Forest Conservation Worksheet

Retained (K) is less then or equal to the Conservation Threshold (E), then M= 2.0 x Conservation

required and no further calculation are necessary (L=0, M=0, N=0, P=0): Otherwise, calculate the

planting requirement(s) as follows:

Reforestation for Clearing Above the Conservation Threshold

Then L= Area of Forest Above Conservation Threshold (G) x 0.25: 1. Reforestation for Clearing Below the Conservation Threshold:

Reforestation Remaining Obligation (To be addressed via street trees)

** To address D.N.E.P. requirements for overall forest establishment / reforestation.

3. For approval to disturb the existing non-tidal wetlands on-site, see MDE permit

l = the Area of Forest to be Cleared (J) x 0.25:

Threshold (E) - Forest to be Retained (K)

N. Credit for Retention Above the Conservation Threshold:

P. Total Reforestation Required: P= L + M - N

R. Total Planting Requirement: R = P + Q

#10-NT-0287/2010611243.

Total Site Area

Total Existing Woods

Total Forest Cons. Area Provided

Reforestation Required (Per FCA)

Reforestation Required (Per D.N.E.P.)

* See FSD/FCP Plans for complete forestry data.

** To address D.N.E.P. requirements for overall forest establishment / reforestation.

Reforestation Remaining Obligation

(Prop. Clearing x 1.0)

Reforestation Provided

Forest to be Cleared (J)

Q. Total Afforestation Required:

(D) - Existing Forest Cover (F)

Reforestation Provided (On-Site)

disturbance and graded open land, to minimize impacts to the existing forest and/or wetlands and their associated buffers. 6. The Residential Planned Development and Record plat are subject to all conditions noted within annexation Resolution No. R-37-05 Revised Amended and Zoning of Annexed Land Ordinance No. 0-38-05 Revised

ensure the preservation of the forest areas therein.

serve the development. Should a gravity sanitary sewer be extended to serve this subdivision and should the City of Annapolis agree to accept ownership of that gravity sanitary sewer upon completion and inspection, then the pumping station may be abandoned and the utility easement associated with it

12. The pumping station shown hereon is for illustrative purposes only, and to demonstrate the availability to adequate public sewer services for the subdivision in connection with approval of the record plat for the subdivision. For additional information regarding the proposed sewer pumping station, see "Amended Adequate Public Facilities Agreement," dated , recorded among the Land Records of Anne

to forego clearing and wetland/buffer disturbance. Connection to the existing trail within the abutting Quiet Waters Park is subject to approval by the A.A.Co. Dept. of Recreation and Parks. For additional notes & details regarding proposed reforestation, landscaping and Open Space/Recreation improvements including proposed off-site trails and paths, see plans prepared by L.P.D.A.

24.98 Ac.±*

0.00 Ac.±**

1,728,142 Sq.Ft.± (39.67 Ac.±)

630,473 Sq.Ft.± (14.474 Ac.±)*

000,000 Sq.Ft.± (00.00 Ac.±)**

000,000 Sq.Ft.± (00.00 Ac.±)**

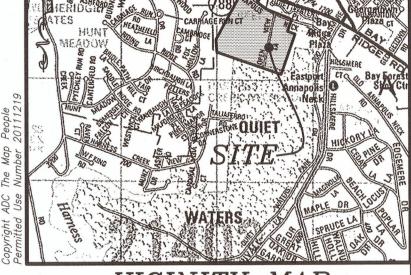
78,815 Sq.Ft.± (1.81 Ac.±)**

SITE ANALYSIS

SHEET IND	EX
Cover Sheet, Typical Notes & Details	FCA. 100
80 Scale Overall Plan View	FCA. 101
40 Scale Forest Conservation Plan Views	FCA.102 - FCA.105

Prepared By:

3/11/15 Michael J. Klebasko, P.W.S. Wetland Studies and Solutions, Inc. (Qualified Professional CoMar 08.19.06.01) 8373 Piney Orchard Parkway, Suite 207 Odenton, Maryland 21113 (410) 672-5990 (Office) (410) 672-5993 (Fax)



the tree save boundary; some forest will be saved on individual lots, outside the FCA. There is no FCA Proposed Limit Earth Dike Proposed Contour Proposed Tree Protective Fence Proposed Reinforced Silt Fence

Stabilized Construction Entrance of disturbance have been retained. For complete sediment controls and additional notes/details regarding Proposed Inlet Protection Proposed Bio-Swale

1.81 Ac. +**

0 Ac.±

C:5

7. Prior to issuance of any permits for the project, easements, agreements, etc. required by the City, in conjunction with the project, shall be executed and recorded in the Land Records of Anne Arundel County, Maryland and copies of the recorded documents shall be provided to the City.

8. Removal of any existing trees within the existing Annapolis Neck Road will require approval from the City

of Annapolis and the Maryland Department of Natural Resources. 9. Forest Conservation Areas are to be granted to the Annapolis Conservancy Board, upon their request, to

10. Prior to the approval of the grading permit, the proposed limit of disturbance shall be staked in the field for review and approval by the City of Annapolis Department of Neighborhood and Environmental Programs, and the limits may be adjusted in the field to avoid critical tree root zones and maintain existing trees within the proposed rear yards, where practical.

11. Lot 94 of this subdivision, shown on these plans, is unbuildable at this time since it is encumbered by a City of Annapolis utility easement intended for the construction of a public sewer pumping station to extingguished. After the salvaging of any equipment and fixtures by the City of Annapolis, ownership of the station shall revert to the fee simple property owner.

Arundel County in Liber at Folio

13. The alignment for the proposed walking trail is for illustrative purposes only, and is subject to revisions

SHEET INDE	ZX
Cover Sheet, Typical Notes & Details	FCA. 100
80 Scale Overall Plan View	FCA. 101
40 Scale Forest Conservation Plan Views	FCA.102 - FCA.105

Forest Conservation Plan

LPDA, Inc. 46169 Westlake Drive. Suite 340 Sterling, Virginia 20165 P: 703-437-7907 F: 434-296-2109 www.lpda.net

SURVEY & CIVIL INFORMATION PROVIDED BY: BOYD & DOWGIALLO, P.A **ENGINEERS*SURVEYORS*PLANNERS** 412 Headquarters Drive, Suite 5 Millersville, Maryland 21108 (410) 729-1234

Parkeside Preserve In Annapolis

Checked by Drawn by Date: March 11, 2015

Issued for **Quiet Waters** Properties, LLC.

FINAL FOREST **CONSERVATION PLANS COVER - NOTES**

Project Number